

Introduction

6000 series commercial aluminium alloys contain both silicon and magnesium which forms magnesium silicide – this formation makes the aluminium alloy heat-treatable.

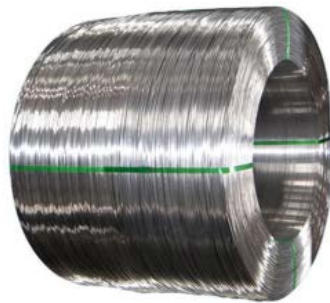
Electrical Grade Aluminum Alloy [6101 & 6201]

Chemical Composition

Aluminum Alloy Designation	Si	Fe	Cu	Cr	Zn	Mn	Mg	B	Other Each	Other Total	Al
6101	0.40 – 0.80	0.50	0.10	0.03	0.10	0.03	0.50 – 0.80	0.06	0.03	0.10	REM
6201	0.50 – 0.90	0.50	0.10	0.03	0.10	0.03	0.60 – 0.90	0.06	0.03	0.10	REM

Electrical & Mechanical Properties of Aluminum Alloy Wire & Wire Rods.

Aluminum Alloy Designation	APAR Product Code	Temper	Diameter	Tensile strength (Mpa)	Elongation	Resistivity	Conductivity
			(mm)	Min	(%)	($\mu\Omega\text{m}$)	(%IACS)
6101	Alloy 6101 (T4), Sol. Tr.	T4	7.60 ± 0.40	157	14.0	34.482	50.00
			9.50 ± 0.50				
			12.50 ± 0.50				
	Alloy 6101 (T8), Sol. Tr.	T8	6.00 to 3.00	295	3.0	32.53	53.00



- We develop and manufacture a broad range of alloys.
- Wires available with different sizes as per customer requirement.
- Wire Rods can be supplied in Coils of maximum weight 2.0MT, Drawn wire 6.0mm up to 4.0mm in coils of maximum weight 1.0MT, Drawn wire below 4.0mm up to 3.0mm in coils of maximum weight 0.50MT,
- The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.

Mechanical Grade Aluminum Alloy [6061 & 6063]

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Chemical Composition

Aluminum Alloy Designation	% Chemical Composition										
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other Each	Other Total	AL
6061	0.40 – 0.80	0.70	0.15 – 0.40	0.15	0.80 – 1.20	0.04 – 0.35	0.25	0.15	0.05	0.15	REM
6063	0.20 – 0.60	0.35	0.10	0.10	0.45 – 0.90	0.10	0.10	0.10	0.05	0.15	REM

Electrical & Mechanical Properties of Aluminum Alloy Wire & Wire Rods.

Aluminum Alloy Designation	Temper	Diameter	Tensile strength (Mpa)	Elongation	Resistivity	Conductivity
		(mm)	Min	(%)	($\mu\Omega\text{m}$)	(%IACS)
6061	M	7.60 ± 0.40	118	12.0	43.103	40.00
		9.50 ± 0.50				
		12.50 ± 0.50				
6061	T4	7.60 ± 0.40	177	14.0	43.103	40.00
		9.50 ± 0.50				
		12.50 ± 0.50				
6061	T8	6.00 to 3.00	343	6.0	43.103	40.00
6063	T8	6.00 to 3.00	343	6.0	43.103	40.00

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- The table above shows some typical values but we can also produce according various international standards and tailor made customer specifications.